

The Section 112, second paragraph, rejection of claim 40 noted in paragraph (ii) on page 2 of Paper No. 10 is traversed as, for example, page 6, lines 18-20 of the specification provide examples of water-solubilizing groups, such as carboxylate, sulfonate, sulfate, phosphate or phosphonate. The specification clearly provides support for the objected to phrase. Moreover, derivatives of aliphatic secondary or tertiary amines are exemplified on page 6, line 24 to page 7, line 13. Consequently, the applicants submit these compounds would be known by one of ordinary skill in the art. Finally, the Examiner is requested to see the attached list of U.S. patents obtained from the U.S. Patent and Trademark Office website wherein claims of U.S. patents were searched for the phrase "derivatives of aliphatic secondary or tertiary amines" and, separately, "water-solubilizing group". These patents are evidence of the applicants' belief that the terms "water-solubilizing groups" and "derivatives of aliphatic secondary or tertiary amines" are commonly used, understood by those of ordinary skill in the art and terms held definite by the Patent Office within the meaning of Section 112, second paragraph.

Withdrawal of the Section 112, second paragraph, rejection of claim 40 stated on page 2 of Paper No. 10.

The Section 112, second paragraph, rejection of claim 33 will be obviated by the above amendments and entry of the same is requested.

The Section 103 rejection of claims 31-33 and 35-61 over Cameron et al. (U.S. 4,722,837) in view of Casmer et al. (U.S. 3,984,544) and Klingman et al. (U.S.

5,998,395) and Cauwet (U.S. 5,661,118) is traversed. Reconsideration and withdrawal of the rejection are requested in view of the following distinguishing remarks.

The present application is directed to a foaming composition for washing and treating hair and/or scalp, comprising, in an aqueous medium:

- at least one active principle selected from the group consisting of a corticoid and a retinoid,
- at least one anionic surfactant,
- at least one amphoteric surfactant, and
- at least one propenetrating agent.

The present application relates to the problem of improving the penetration of a least one active principle selected from the group consisting of a corticoid and a retinoid, and improving the characteristics of volume and compactness of the foam. The composition must also be particularly easy to use and exhibit good cosmetic properties such as softness, non-greasiness and manageability of hair, as well as be stable over time.

As described in the application, the fluidity of prior art compositions makes their application difficult and it is often necessary to apply these compositions by rubbing (leading to an even greater irritation of the epidermis) or by allowing them to act for several hours, which is annoying to the patient.

It appears that the prior art does not contain any element suggesting to one of ordinary skill in the art to solve this problem in a satisfying manner.

The present inventors discovered that the claimed combination permits one to overcome these drawbacks.

Cameron et al. (U.S. 4,722,837) describe a medicated shampoo composition for treating scalp disorders such as flaking, scaling, dandruff, psoriasis, eczema and seborrhea (col. 1, lines 57-59). It comprises pharmacologically acceptable ingredients including:

- (i) 0.1-0.5% by weight of hydrocortisone in combination with
  - (ii) 2.5-5% by weight of colloidal sulphur,
- in a shampoo base (column 1, lines 59-67).

The Examiner points out that in column 2, lines 21-26, the reference teaches the combination of a laureth sulfate salt (anionic surfactant) and a betaine (an amphoteric surfactant).

The applicants believe that Cameron et al. does not disclose the combination of an anionic surfactant and an amphoteric surfactant. The shampoo base preferably comprises a detergent wherein the term detergent is specifically indicated in the singular form. The detergent of the reference is selected from lauryl sulfate salt, laureth sulfate salt, amphoteric surfactant and a betaine (column , lines 21-26).

Furthermore, the passage in column 2, lines 21-26, teaches:

- that the shampoo base comprises a detergent, a C14-16 olefin sulfonate being generally preferred,
- that the detergent is selected from a list (lauryl sulfate salt, laureth sulfate salt, a betaine) which does not mention the combination of the surfactants of the list,
- examples of lauryl sulfate salt,
- examples of laureth sulfate salt, and

- examples of betaine.

Consequently, contrary to the Examiner's opinion, the mixture of an anionic surfactant and an amphoteric surfactant is not contemplated by Cameron, neither in the description of the invention (and in particular in column 2, lines 21-33, and claim 10) nor in the examples.

Cameron teaches that combining a corticoid and a colloidal sulfur permits one to obtain stable medicated shampoo compositions with an improved shelf life.

The problem raised in this patent is to overcome the disadvantages and shortcomings of the prior art compositions, namely the instability and the very short shelf life (column 1, lines 40-49).

The essential differences between the present invention and Cameron are:

- one detergent,
- the optional use of retinoid alone or in combination a corticoid,
- the use of propenetrating agent
- the compulsory combination of:
  - at least one active principle selected from the group consisting of corticoids and retinoids,
  - at least one anionic surfactant,
  - at least one amphoteric surfactant, and
  - at least one propenetrating agent.

Consequently, this document neither teaches nor suggests the inclusion of a propenetrating agent or a combination anionic surfactant/amphoteric surfactant, as presently claimed.

Casmer et al. (U.S. 3,984,544) describe novel retinoic acid esters of steroids of the pregnane series and their use in treating acne vulgaris which is a skin disorder.

This document discloses novel active principles for treating acne vulgaris (and not scalp disorders) and compositions comprising them, together with a non-toxic, pharmaceutically acceptable carrier (column 10, lines 12-15). The steroidal retinoates are conveniently applied in a liquid solvent (column 10, lines 26-31).

Example 14 exemplifies topical pharmaceutical compositions and isopropanol is, in particular, used in examples 14 C (3) and 14 D (1) as a solvent and not as a propenetrating agent.

There is no indication in this document concerning the use of a propenetrating agent. The problem raised in this document is to replace retinoic acid which is irritating to the skin in the treatment of acne vulgaris.

There is no more indication nor motivation in this document leading one of ordinary skill in the art to use either corticoid(s) or retinoid(s) and retinoid(s) (that is to say at least one active principle selected from the group consisting of a corticoid and a retinoid), in combination with at least one anionic surfactant, at least one amphoteric surfactant, and at least one propenetrating agent, to solve the technical problem of the invention.

Klingman et al. (U.S. 5,998,395) describe methods of treating inflammatory dermatosis, with the particular combination corticosteroid/retinoid in a carrier pharmaceutically acceptable for both the retinoid and corticosteroid. This document does not describe any particular carrier.

The problem raised in this document relates to control and to clear more effectively the inflammatory dermatosis. It has been solved by using the particular combination corticosteroid/retinoid.

Consequently, there is no more indication nor motivation in this document leading one of ordinary skill in the art to use either corticoid(s) or retinoid(s) or corticoid(s) and retinoid(s) (that is to say at least one active principle selected from the group consisting of a corticoid and a retinoid), in combination with at least one anionic surfactant, at least one amphoteric surfactant, and at least one propenetrating agent, to solve the technical problem of the invention.

The problem raised in the present application does not consist of using a new active principle as taught by Casmer et al. and Klingman et al., but involves improving the penetration of the active principle while being particularly easy to use and exhibiting good cosmetic properties such as softness, non-greasiness and manageability of hair.

Therefore, there was no motivation for one of ordinary skill in the art, to have combined Cameron with Casmer and Klingman, the latter references relating to the use of new active principle, to improve the penetration of an active principle, or for any other purpose.

Even if one of ordinary skill in the art would have combined Cameron with Casmer and Klingman, they would not have been motivated to combine at least one active principle selected from the group consisting of a corticoid and a retinoid, at least one anionic surfactant, at least one amphoteric surfactant, and at least one propenetrating agent, to make the unexpected improvement in the penetration of the active principle of the composition while also being particularly easy to use and exhibiting good cosmetic properties such as softness, non-greasiness and manageability of hair.

If anything, one of ordinary skill in the art would have been motivated by the cited art to use both retinoid and corticoid or a retinoic acid ester in a base shampoo as described by Cameron, instead of using the at least one active principle with a propenetrating agent, and amphoteric and anionic surfactants.

Thus, the presently claimed invention would not have been obvious to one of ordinary skilled in the art at the time the invention was made.

The teachings of Cauwet fail to cure the deficiencies of the above-noted references. Consideration of the following in this regard is requested.

Cauwet et al. (U.S. 5,661,118) describe compositions for washing and treating hair and/or skin, and more particularly conditioning shampoos. These compositions comprise:

- at least one anionic surfactant,
- at least one selected from zwitterionic and amphoteric surfactants,
- at least one polymer containing cationic groups, and
- at least one ceramide and/or glycosphingolipid

preferably in water (column 14, lines 1-2 and examples).

The composition can comprise anti-seborrhoeic agents or anti-dandruff agents (column 14, lines 10-13).

Nevertheless, this document neither teaches the combination of anionic and amphoteric surfactants with active principles and propenetrating agents as presently claimed.

Moreover, the problem raised in this document is to improve the disentangling of hair. It has been solved by combining a cationic polymer and ceramide and/or glycoceramide.


Therefore, there is no more suggestion in this document, relative to the above-noted documents, to use a propenetrating agent and to combine it with an anionic surfactant, an amphoteric surfactant and at least one active principle, as presently claimed.

Thus, the invention, as claimed, would not have been obvious to one of ordinary skilled in the art at the time the invention was made and withdrawal of the Section 103 rejection is requested.

In view of the above and attached, the claims are submitted to be in condition for allowance and a Notice to that effect is requested.

Respectfully submitted,

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE CLAIMS**

Amend the claims as follows.

33. (Twice Amended) A composition according to Claim 31, wherein the retinoid is selected from the group consisting of all-trans-retinoic acid, adapalene, isotretinoin, retinol, retinol acetate, retinol palmitate, [and] retinol propionate, motretinide, etretinate, acitretin, zinc all-trans-retinoate, arotinoids and pharmaceutically acceptable mixtures thereof.

50. (Twice Amended) A composition according to Claim 31, wherein the weight ratio active material of anionic surfactant/active material of amphoteric surface is between 1 and 20 [the ratio of the proportion of active material of the anionic surfactant to the proportion as active material of the amphoteric surfactant is between 1 and 20].

51. (Twice Amended) A composition according to Claim 31, wherein the weight ratio active material of anionic surfactant/propenetrating agent is between 0.1 and 10 [the ratio of the proportion of active material of the anionic surfactant to the proportion of the propenetrating agents is between 0.1 and 10].